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Appendix B.7

LTE Band 12



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Effective (Isotropic) Radiated Power Output Data

Test Result

Ant13:

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	ERP(dBm)	Limit(dBm)	Verdict
Band12	1.4MHz	QPSK	23017	1RB#0	24.14	14.49	34.77	PASS
Band12	1.4MHz	QPSK	23017	1RB#2	23.90	14.25	34.77	PASS
Band12	1.4MHz	QPSK	23017	1RB#5	23.77	14.12	34.77	PASS
Band12	1.4MHz	QPSK	23017	6RB#0	22.78	13.13	34.77	PASS
Band12	1.4MHz	QPSK	23095	1RB#0	23.78	14.13	34.77	PASS
Band12	1.4MHz	QPSK	23095	1RB#2	23.91	14.26	34.77	PASS
Band12	1.4MHz	QPSK	23095	1RB#5	23.83	14.18	34.77	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	22.84	13.19	34.77	PASS
Band12	1.4MHz	QPSK	23173	1RB#0	23.71	14.06	34.77	PASS
Band12	1.4MHz	QPSK	23173	1RB#2	23.92	14.27	34.77	PASS
Band12	1.4MHz	QPSK	23173	1RB#5	23.92	14.27	34.77	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	22.80	13.15	34.77	PASS
Band12	1.4MHz	16QAM	23017	1RB#0	23.14	13.49	34.77	PASS
Band12	1.4MHz	16QAM	23017	1RB#2	23.23	13.58	34.77	PASS
Band12	1.4MHz	16QAM	23017	1RB#5	23.01	13.36	34.77	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	22.00	12.35	34.77	PASS
Band12	1.4MHz	16QAM	23095	1RB#0	23.19	13.54	34.77	PASS
Band12	1.4MHz	16QAM	23095	1RB#2	23.29	13.64	34.77	PASS
Band12	1.4MHz	16QAM	23095	1RB#5	23.28	13.63	34.77	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	21.92	12.27	34.77	PASS
Band12	1.4MHz	16QAM	23173	1RB#0	22.89	13.24	34.77	PASS
Band12	1.4MHz	16QAM	23173	1RB#2	23.00	13.35	34.77	PASS
Band12	1.4MHz	16QAM	23173	1RB#5	22.97	13.32	34.77	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	22.01	12.36	34.77	PASS
Band12	1.4MHz	64QAM	23017	1RB#0	21.99	12.34	34.77	PASS
Band12	1.4MHz	64QAM	23017	1RB#2	22.15	12.50	34.77	PASS
Band12	1.4MHz	64QAM	23017	1RB#5	21.98	12.33	34.77	PASS
Band12	1.4MHz	64QAM	23017	6RB#0	20.80	11.15	34.77	PASS
Band12	1.4MHz	64QAM	23095	1RB#0	22.04	12.39	34.77	PASS
Band12	1.4MHz	64QAM	23095	1RB#2	21.83	12.18	34.77	PASS



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Band12	1.4MHz	64QAM	23095	1RB#5	21.91	12.26	34.77	PASS
Band12	1.4MHz	64QAM	23095	6RB#0	20.75	11.10	34.77	PASS
Band12	1.4MHz	64QAM	23173	1RB#0	21.91	12.26	34.77	PASS
Band12	1.4MHz	64QAM	23173	1RB#2	21.98	12.33	34.77	PASS
Band12	1.4MHz	64QAM	23173	1RB#5	22.33	12.68	34.77	PASS
Band12	1.4MHz	64QAM	23173	6RB#0	20.81	11.16	34.77	PASS
Band12	3MHz	QPSK	23025	1RB#0	23.76	14.11	34.77	PASS
Band12	3MHz	QPSK	23025	1RB#8	23.84	14.19	34.77	PASS
Band12	3MHz	QPSK	23025	1RB#14	23.91	14.26	34.77	PASS
Band12	3MHz	QPSK	23025	15RB#0	22.98	13.33	34.77	PASS
Band12	3MHz	QPSK	23095	1RB#0	23.71	14.06	34.77	PASS
Band12	3MHz	QPSK	23095	1RB#8	23.97	14.32	34.77	PASS
Band12	3MHz	QPSK	23095	1RB#14	23.79	14.14	34.77	PASS
Band12	3MHz	QPSK	23095	15RB#0	22.85	13.20	34.77	PASS
Band12	3MHz	QPSK	23165	1RB#0	23.85	14.20	34.77	PASS
Band12	3MHz	QPSK	23165	1RB#8	23.80	14.15	34.77	PASS
Band12	3MHz	QPSK	23165	1RB#14	23.82	14.17	34.77	PASS
Band12	3MHz	QPSK	23165	15RB#0	22.90	13.25	34.77	PASS
Band12	3MHz	16QAM	23025	1RB#0	23.48	13.83	34.77	PASS
Band12	3MHz	16QAM	23025	1RB#8	23.11	13.46	34.77	PASS
Band12	3MHz	16QAM	23025	1RB#14	23.13	13.48	34.77	PASS
Band12	3MHz	16QAM	23025	15RB#0	22.01	12.36	34.77	PASS
Band12	3MHz	16QAM	23095	1RB#0	23.17	13.52	34.77	PASS
Band12	3MHz	16QAM	23095	1RB#8	23.16	13.51	34.77	PASS
Band12	3MHz	16QAM	23095	1RB#14	22.95	13.30	34.77	PASS
Band12	3MHz	16QAM	23095	15RB#0	21.88	12.23	34.77	PASS
Band12	3MHz	16QAM	23165	1RB#0	23.28	13.63	34.77	PASS
Band12	3MHz	16QAM	23165	1RB#8	23.04	13.39	34.77	PASS
Band12	3MHz	16QAM	23165	1RB#14	23.20	13.55	34.77	PASS
Band12	3MHz	16QAM	23165	15RB#0	21.88	12.23	34.77	PASS
Band12	3MHz	64QAM	23025	1RB#0	22.19	12.54	34.77	PASS
Band12	3MHz	64QAM	23025	1RB#8	22.21	12.56	34.77	PASS
Band12	3MHz	64QAM	23025	1RB#14	21.98	12.33	34.77	PASS
Band12	3MHz	64QAM	23025	15RB#0	20.91	11.26	34.77	PASS
Band12	3MHz	64QAM	23095	1RB#0	22.02	12.37	34.77	PASS
Band12	3MHz	64QAM	23095	1RB#8	22.01	12.36	34.77	PASS
Band12	3MHz	64QAM	23095	1RB#14	22.04	12.39	34.77	PASS
Band12	3MHz	64QAM	23095	15RB#0	20.77	11.12	34.77	PASS



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Band12	3MHz	64QAM	23165	1RB#0	22.03	12.38	34.77	PASS
Band12	3MHz	64QAM	23165	1RB#8	22.10	12.45	34.77	PASS
Band12	3MHz	64QAM	23165	1RB#14	22.03	12.38	34.77	PASS
Band12	3MHz	64QAM	23165	15RB#0	20.88	11.23	34.77	PASS
Band12	5MHz	QPSK	23035	1RB#0	24.24	14.59	34.77	PASS
Band12	5MHz	QPSK	23035	1RB#12	23.71	14.06	34.77	PASS
Band12	5MHz	QPSK	23035	1RB#24	23.97	14.32	34.77	PASS
Band12	5MHz	QPSK	23035	25RB#0	22.97	13.32	34.77	PASS
Band12	5MHz	QPSK	23095	1RB#0	23.89	14.24	34.77	PASS
Band12	5MHz	QPSK	23095	1RB#12	23.77	14.12	34.77	PASS
Band12	5MHz	QPSK	23095	1RB#24	23.85	14.20	34.77	PASS
Band12	5MHz	QPSK	23095	25RB#0	22.92	13.27	34.77	PASS
Band12	5MHz	QPSK	23155	1RB#0	23.91	14.26	34.77	PASS
Band12	5MHz	QPSK	23155	1RB#12	23.77	14.12	34.77	PASS
Band12	5MHz	QPSK	23155	1RB#24	23.95	14.30	34.77	PASS
Band12	5MHz	QPSK	23155	25RB#0	22.88	13.23	34.77	PASS
Band12	5MHz	16QAM	23035	1RB#0	23.10	13.45	34.77	PASS
Band12	5MHz	16QAM	23035	1RB#12	23.04	13.39	34.77	PASS
Band12	5MHz	16QAM	23035	1RB#24	23.29	13.64	34.77	PASS
Band12	5MHz	16QAM	23035	25RB#0	22.01	12.36	34.77	PASS
Band12	5MHz	16QAM	23095	1RB#0	23.33	13.68	34.77	PASS
Band12	5MHz	16QAM	23095	1RB#12	23.07	13.42	34.77	PASS
Band12	5MHz	16QAM	23095	1RB#24	23.08	13.43	34.77	PASS
Band12	5MHz	16QAM	23095	25RB#0	21.95	12.30	34.77	PASS
Band12	5MHz	16QAM	23155	1RB#0	23.11	13.46	34.77	PASS
Band12	5MHz	16QAM	23155	1RB#12	23.09	13.44	34.77	PASS
Band12	5MHz	16QAM	23155	1RB#24	23.17	13.52	34.77	PASS
Band12	5MHz	16QAM	23155	25RB#0	21.88	12.23	34.77	PASS
Band12	5MHz	64QAM	23035	1RB#0	22.07	12.42	34.77	PASS
Band12	5MHz	64QAM	23035	1RB#12	21.89	12.24	34.77	PASS
Band12	5MHz	64QAM	23035	1RB#24	22.02	12.37	34.77	PASS
Band12	5MHz	64QAM	23035	25RB#0	20.87	11.22	34.77	PASS
Band12	5MHz	64QAM	23095	1RB#0	21.99	12.34	34.77	PASS
Band12	5MHz	64QAM	23095	1RB#12	21.94	12.29	34.77	PASS
Band12	5MHz	64QAM	23095	1RB#24	22.00	12.35	34.77	PASS
Band12	5MHz	64QAM	23095	25RB#0	20.81	11.16	34.77	PASS
Band12	5MHz	64QAM	23155	1RB#0	22.00	12.35	34.77	PASS
Band12	5MHz	64QAM	23155	1RB#12	22.03	12.38	34.77	PASS



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Band12	5MHz	64QAM	23155	1RB#24	21.91	12.26	34.77	PASS
Band12	5MHz	64QAM	23155	25RB#0	20.88	11.23	34.77	PASS
Band12	10MHz	QPSK	23060	1RB#0	24.42	14.77	34.77	PASS
Band12	10MHz	QPSK	23060	1RB#24	23.89	14.24	34.77	PASS
Band12	10MHz	QPSK	23060	1RB#49	24.17	14.52	34.77	PASS
Band12	10MHz	QPSK	23060	50RB#0	23.05	13.40	34.77	PASS
Band12	10MHz	QPSK	23095	1RB#0	24.26	14.61	34.77	PASS
Band12	10MHz	QPSK	23095	1RB#24	23.75	14.10	34.77	PASS
Band12	10MHz	QPSK	23095	1RB#49	23.92	14.27	34.77	PASS
Band12	10MHz	QPSK	23095	50RB#0	22.93	13.28	34.77	PASS
Band12	10MHz	QPSK	23130	1RB#0	24.39	14.74	34.77	PASS
Band12	10MHz	QPSK	23130	1RB#24	23.98	14.33	34.77	PASS
Band12	10MHz	QPSK	23130	1RB#49	24.57	14.92	34.77	PASS
Band12	10MHz	QPSK	23130	50RB#0	22.95	13.30	34.77	PASS
Band12	10MHz	16QAM	23060	1RB#0	23.56	13.91	34.77	PASS
Band12	10MHz	16QAM	23060	1RB#24	23.47	13.82	34.77	PASS
Band12	10MHz	16QAM	23060	1RB#49	23.06	13.41	34.77	PASS
Band12	10MHz	16QAM	23060	50RB#0	22.08	12.43	34.77	PASS
Band12	10MHz	16QAM	23095	1RB#0	23.45	13.80	34.77	PASS
Band12	10MHz	16QAM	23095	1RB#24	23.10	13.45	34.77	PASS
Band12	10MHz	16QAM	23095	1RB#49	23.13	13.48	34.77	PASS
Band12	10MHz	16QAM	23095	50RB#0	21.94	12.29	34.77	PASS
Band12	10MHz	16QAM	23130	1RB#0	23.45	13.80	34.77	PASS
Band12	10MHz	16QAM	23130	1RB#24	22.97	13.32	34.77	PASS
Band12	10MHz	16QAM	23130	1RB#49	23.09	13.44	34.77	PASS
Band12	10MHz	16QAM	23130	50RB#0	22.00	12.35	34.77	PASS
Band12	10MHz	64QAM	23060	1RB#0	22.25	12.60	34.77	PASS
Band12	10MHz	64QAM	23060	1RB#24	21.95	12.30	34.77	PASS
Band12	10MHz	64QAM	23060	1RB#49	22.10	12.45	34.77	PASS
Band12	10MHz	64QAM	23060	50RB#0	20.95	11.30	34.77	PASS
Band12	10MHz	64QAM	23095	1RB#0	22.38	12.73	34.77	PASS
Band12	10MHz	64QAM	23095	1RB#24	21.93	12.28	34.77	PASS
Band12	10MHz	64QAM	23095	1RB#49	22.04	12.39	34.77	PASS
Band12	10MHz	64QAM	23095	50RB#0	20.89	11.24	34.77	PASS
Band12	10MHz	64QAM	23130	1RB#0	22.51	12.86	34.77	PASS
Band12	10MHz	64QAM	23130	1RB#24	21.91	12.26	34.77	PASS
Band12	10MHz	64QAM	23130	1RB#49	21.91	12.26	34.77	PASS
Band12	10MHz	64QAM	23130	50RB#0	20.94	11.29	34.77	PASS



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Peak-to-Average Ratio(CCDF)

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band12	10MHz	QPSK	23060	50RB#0	5.07	13	PASS
Band12	10MHz	QPSK	23095	50RB#0	5.16	13	PASS
Band12	10MHz	QPSK	23130	50RB#0	5.04	13	PASS
Band12	10MHz	16QAM	23060	50RB#0	5.91	13	PASS
Band12	10MHz	16QAM	23095	50RB#0	5.91	13	PASS
Band12	10MHz	16QAM	23130	50RB#0	5.83	13	PASS
Band12	10MHz	64QAM	23060	50RB#0	6.35	13	PASS
Band12	10MHz	64QAM	23095	50RB#0	6.38	13	PASS
Band12	10MHz	64QAM	23130	50RB#0	6.29	13	PASS



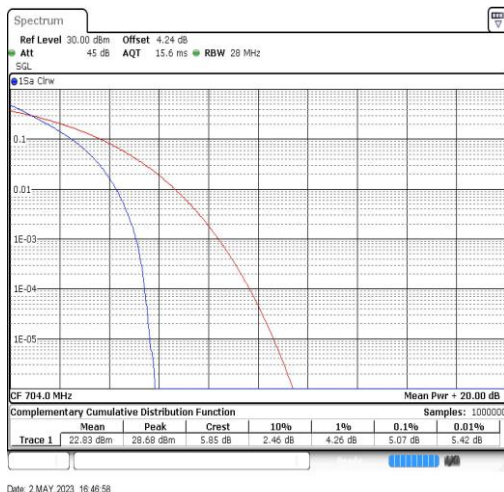
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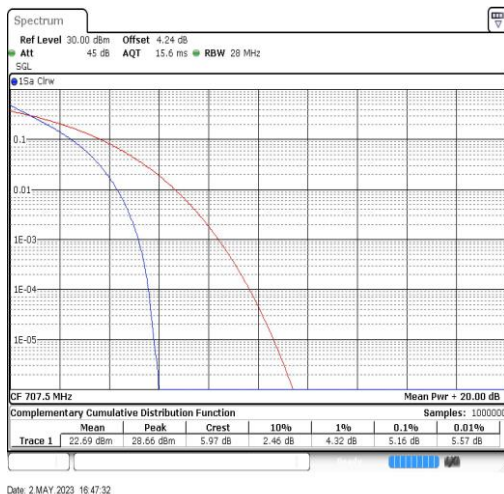
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Test Graphs

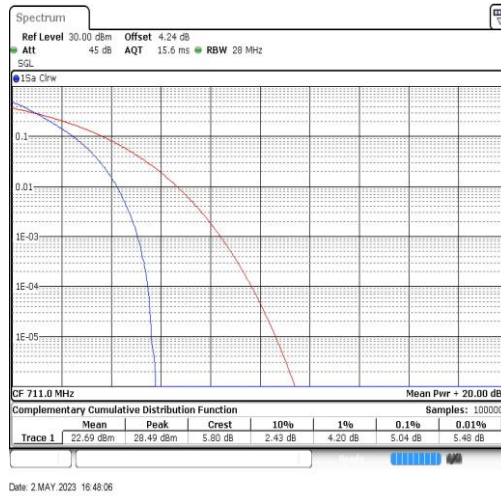


Band12-10MHz-QPSK-23060-50RB#0

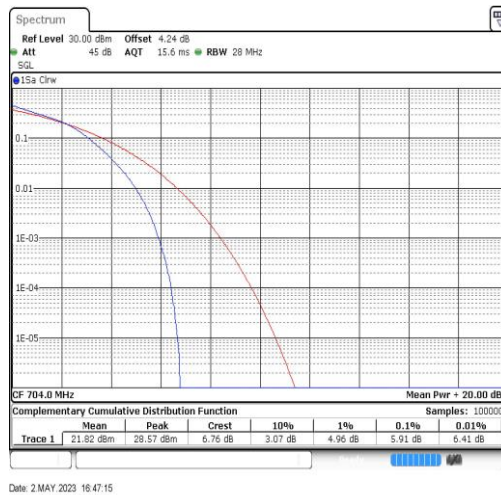


Band12-10MHz-QPSK-23095-50RB#0





Band12-10MHz-QPSK-23130-50RB#0



Band12-10MHz-16QAM-23060-50RB#0

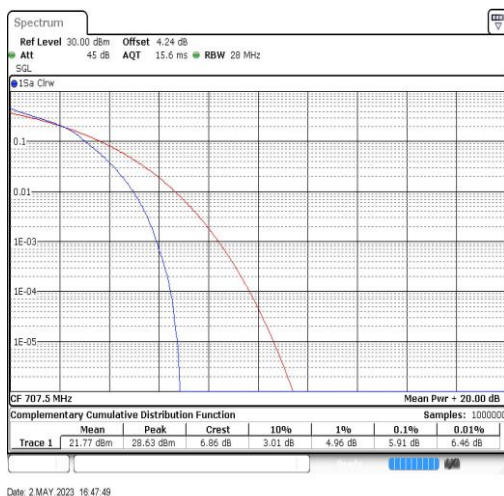




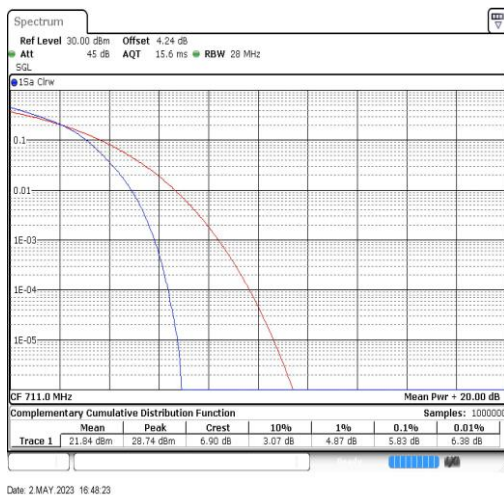
Report No.: ZEWM2303000343RG02

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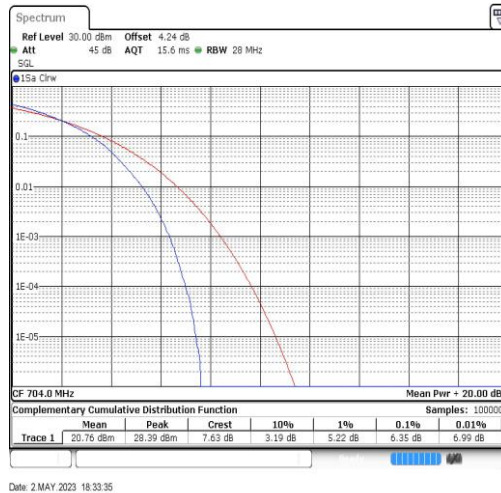


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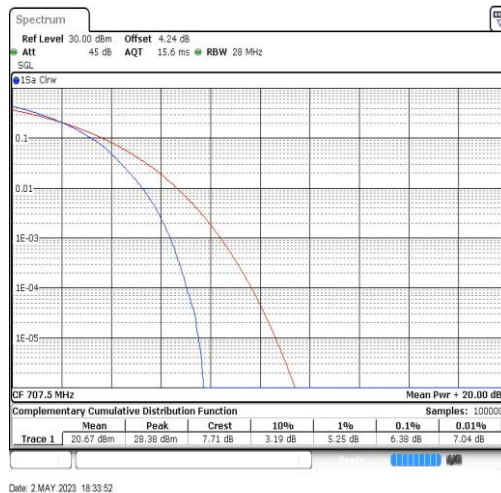


Band12-10MHz-16QAM-23130-50RB#0





Band12-10MHz-64QAM-23060-50RB#0



Band12-10MHz-64QAM-23095-50RB#0

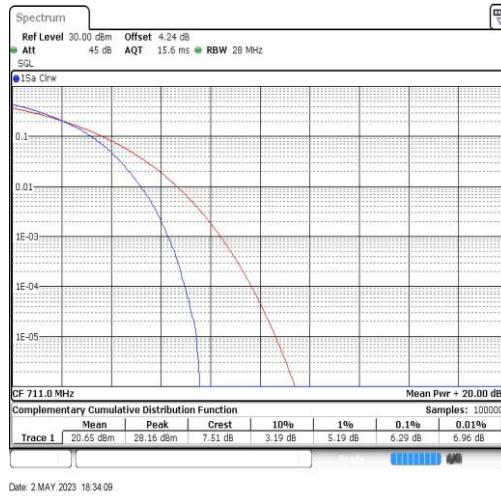




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Band12-10MHz-64QAM-23130-50RB#0



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Modulation Characteristics

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result	Verdict
Band12	10MHz	QPSK	23095	50RB#0	PASS	PASS
Band12	10MHz	16QAM	23095	50RB#0	PASS	PASS
Band12	10MHz	64QAM	23095	50RB#0	PASS	PASS



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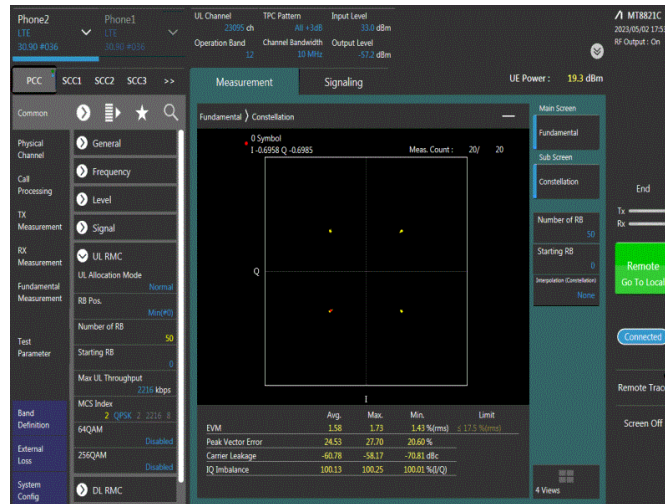
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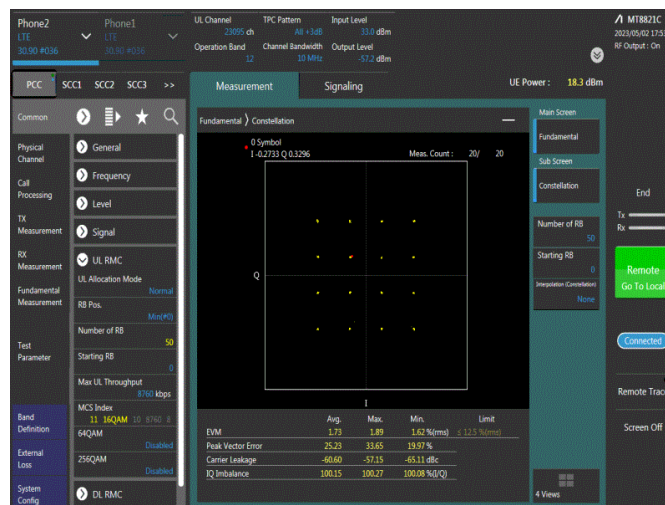
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Test Graphs

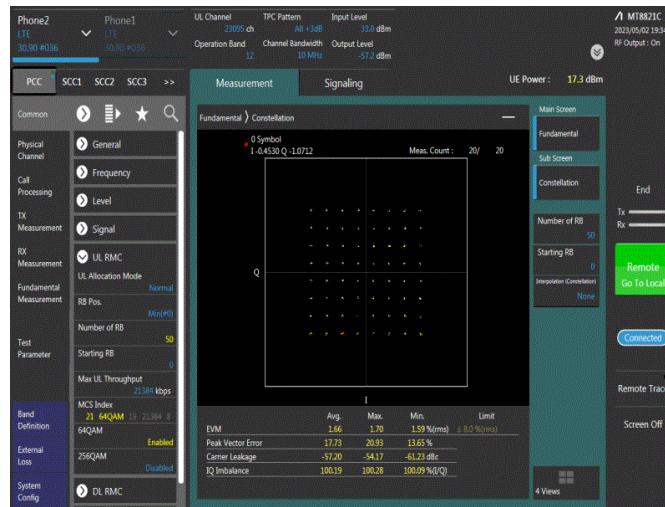


Band12-10MHz-QPSK-23095-50RB#0



Band12-10MHz-16QAM-23095-50RB#0





Band12-10MHz-64QAM-23095-50RB#0





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26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band12	1.4MHz	QPSK	23017	6RB#0	1.088	1.29	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	1.088	1.28	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	1.091	1.29	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	1.097	1.29	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	1.1	1.31	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	1.097	1.29	PASS
Band12	1.4MHz	64QAM	23017	6RB#0	1.094	1.30	PASS
Band12	1.4MHz	64QAM	23095	6RB#0	1.1	1.30	PASS
Band12	1.4MHz	64QAM	23173	6RB#0	1.094	1.29	PASS
Band12	3MHz	QPSK	23025	15RB#0	2.691	2.97	PASS
Band12	3MHz	QPSK	23095	15RB#0	2.697	2.97	PASS
Band12	3MHz	QPSK	23165	15RB#0	2.697	2.96	PASS
Band12	3MHz	16QAM	23025	15RB#0	2.691	2.98	PASS
Band12	3MHz	16QAM	23095	15RB#0	2.685	2.97	PASS
Band12	3MHz	16QAM	23165	15RB#0	2.691	2.97	PASS
Band12	3MHz	64QAM	23025	15RB#0	2.685	2.97	PASS
Band12	3MHz	64QAM	23095	15RB#0	2.691	2.96	PASS
Band12	3MHz	64QAM	23165	15RB#0	2.685	2.96	PASS
Band12	5MHz	QPSK	23035	25RB#0	4.466	4.88	PASS
Band12	5MHz	QPSK	23095	25RB#0	4.476	4.91	PASS
Band12	5MHz	QPSK	23155	25RB#0	4.466	4.87	PASS
Band12	5MHz	16QAM	23035	25RB#0	4.466	4.93	PASS
Band12	5MHz	16QAM	23095	25RB#0	4.476	4.94	PASS
Band12	5MHz	16QAM	23155	25RB#0	4.466	4.95	PASS
Band12	5MHz	64QAM	23095	25RB#0	4.486	4.94	PASS
Band12	5MHz	64QAM	23035	25RB#0	4.476	4.89	PASS
Band12	5MHz	64QAM	23155	25RB#0	4.486	4.91	PASS
Band12	10MHz	QPSK	23060	50RB#0	8.931	9.64	PASS
Band12	10MHz	QPSK	23095	50RB#0	8.931	9.74	PASS



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Band12	10MHz	QPSK	23130	50RB#0	8.911	9.60	PASS
Band12	10MHz	16QAM	23060	50RB#0	8.911	9.64	PASS
Band12	10MHz	16QAM	23095	50RB#0	8.931	9.72	PASS
Band12	10MHz	16QAM	23130	50RB#0	8.911	9.64	PASS
Band12	10MHz	64QAM	23095	50RB#0	8.951	9.76	PASS
Band12	10MHz	64QAM	23130	50RB#0	8.911	9.68	PASS
Band12	10MHz	64QAM	23060	50RB#0	8.911	9.66	PASS



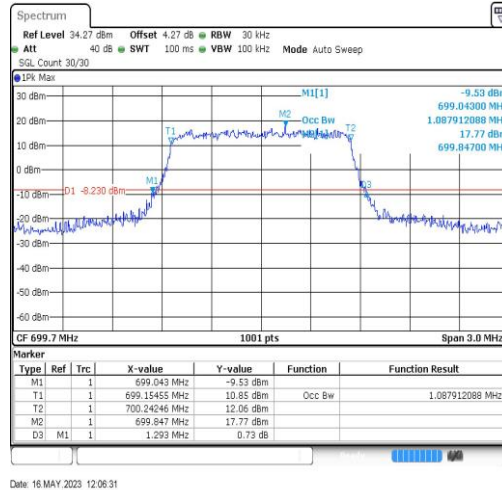
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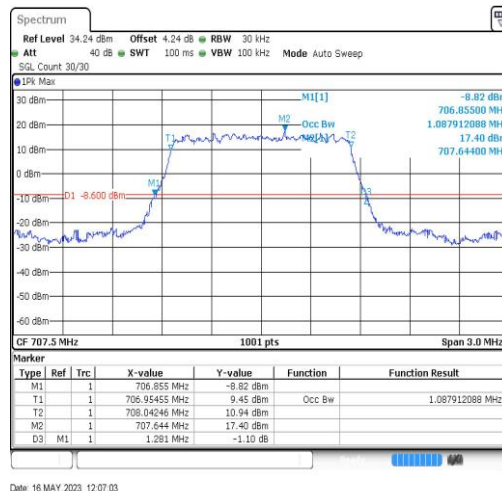
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Test Graphs

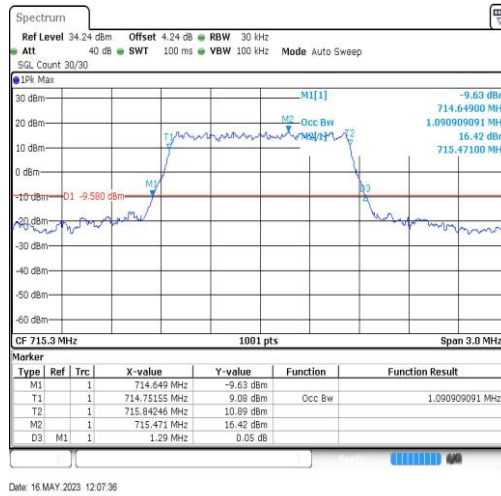


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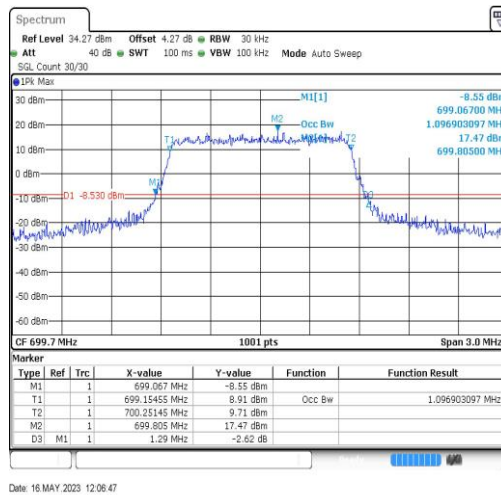


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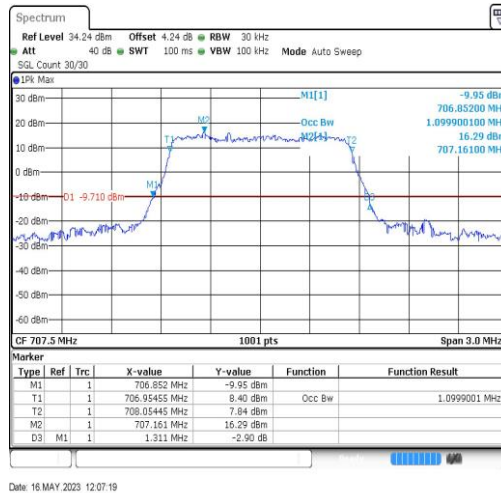


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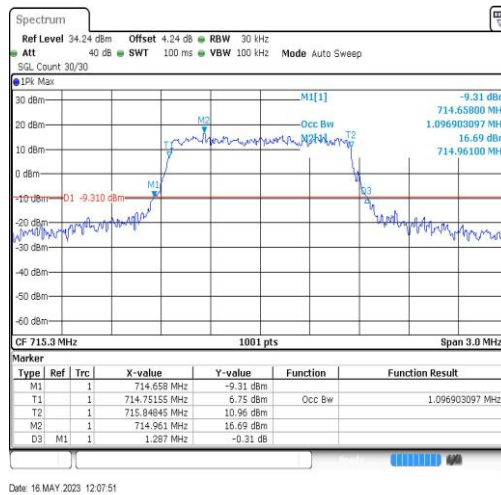


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Band12-1.4MHz-16QAM-23095-6RB#0-1.1



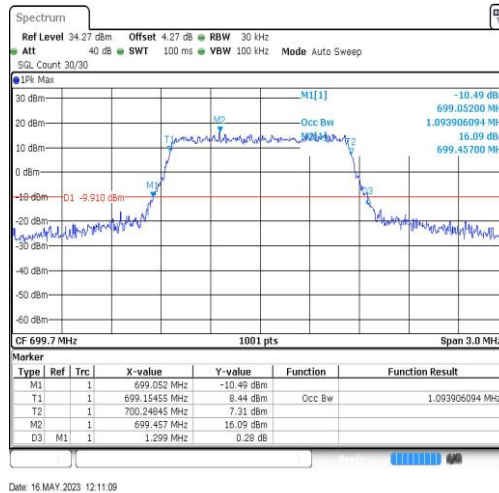
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Band12-1.4MHz-64QAM-23017-6RB#0-1.094



Date: 16 MAY 2023 12:11:27

Band12-1.4MHz-64QAM-23095-6RB#0-1.1



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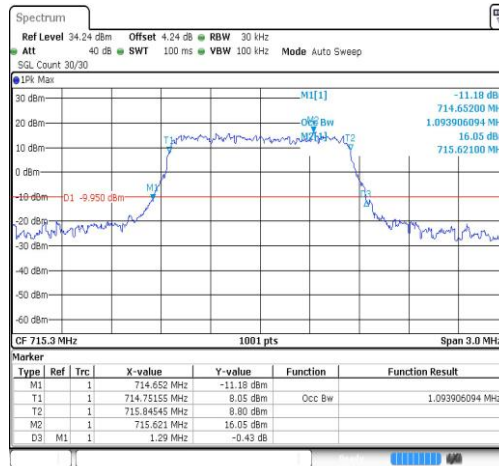
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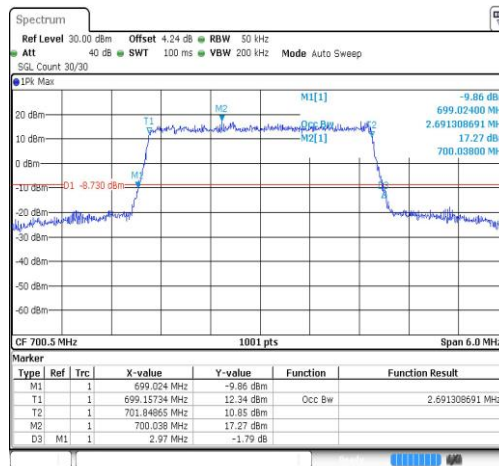
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Band12-1.4MHz-64QAM-23173-6RB#0-1.094



Date: 26 APR 2023 22:30:56

Band12-3MHz-QPSK-23025-15RB#0-2.691



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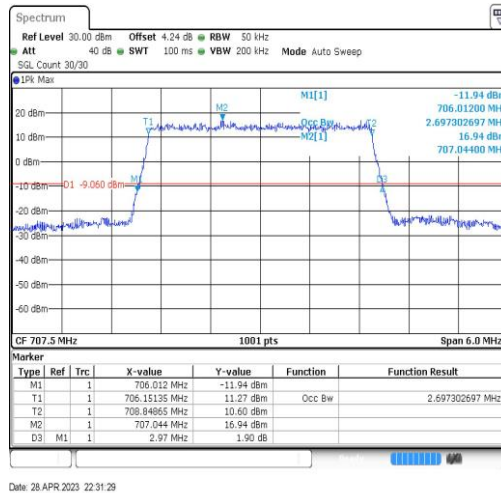
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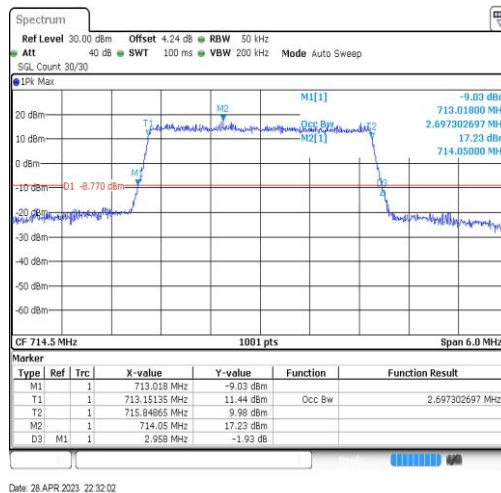
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Band12-3MHz-QPSK-23095-15RB#0-2.697



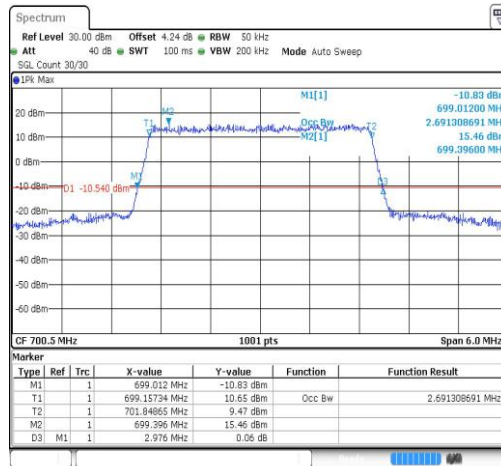
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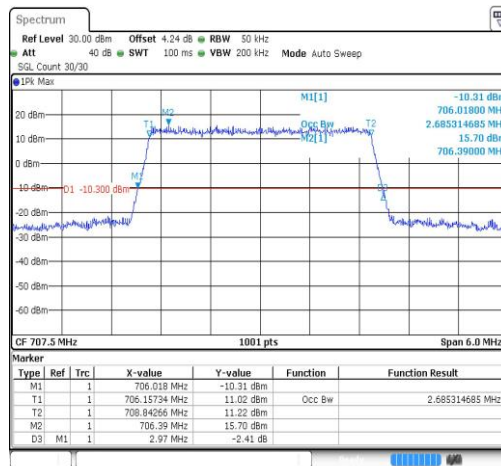
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Band12-3MHz-16QAM-23025-15RB#0-2.691



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Band12-3MHz-16QAM-23095-15RB#0-2.685



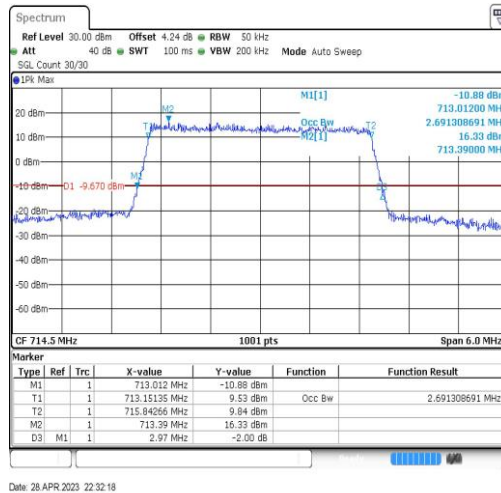
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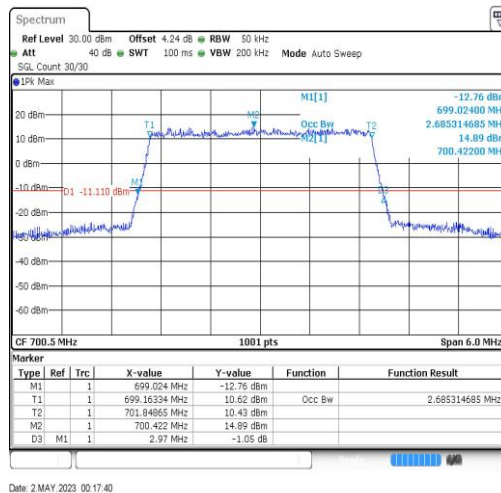
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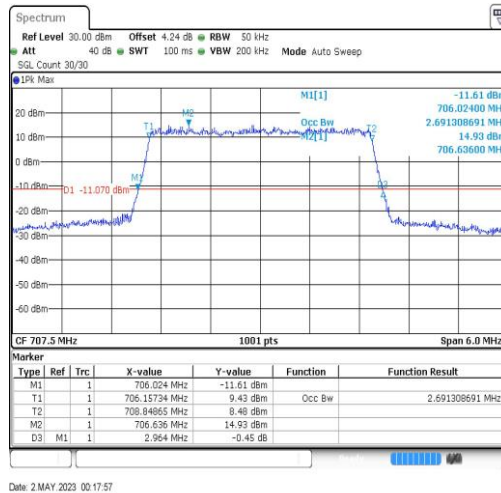


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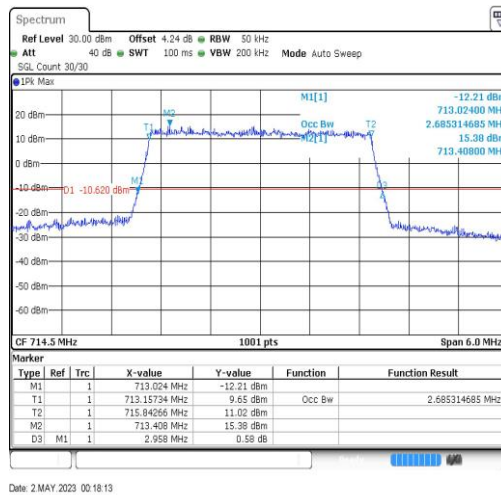


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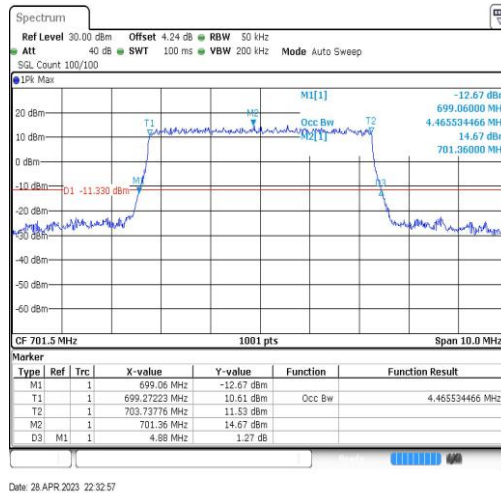


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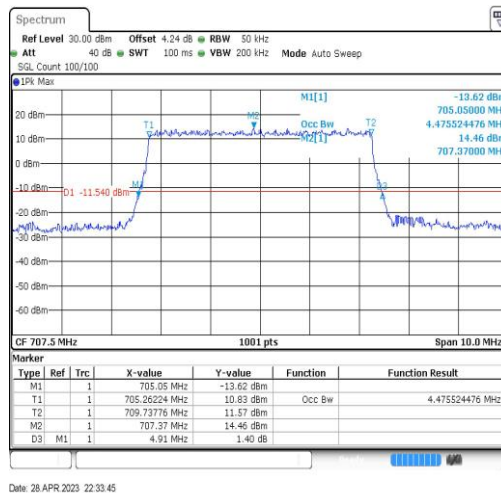


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Band12-5MHz-QPSK-23035-25RB#0-4.466



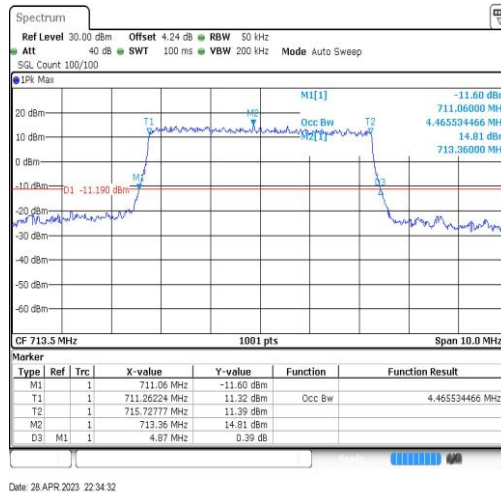
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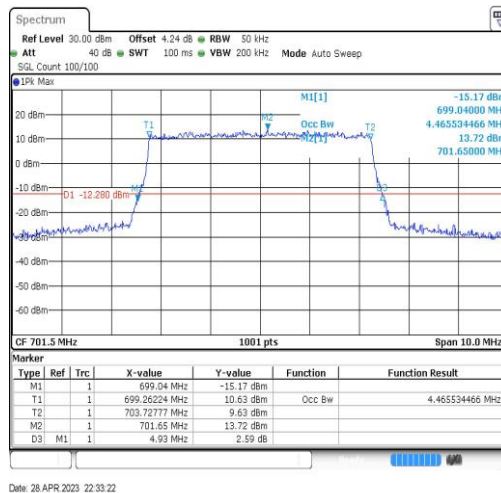
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Date: 28 APR 2023 22:34:32

Band12-5MHz-QPSK-23155-25RB#0-4.466



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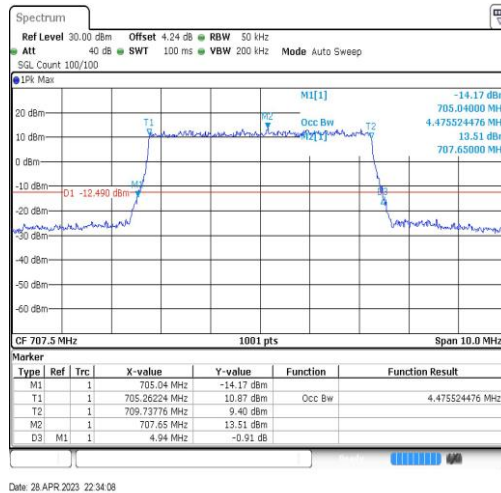
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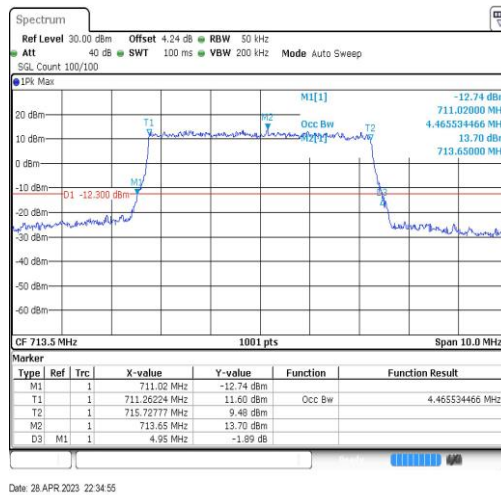
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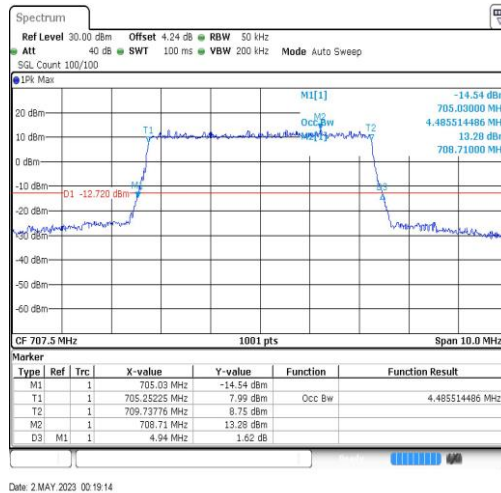


Band12-5MHz-16QAM-23095-25RB#0-4.476

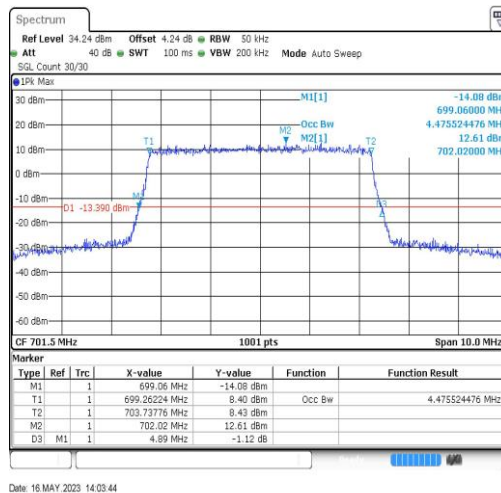


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Band12-5MHz-64QAM-23095-25RB#0-4.486



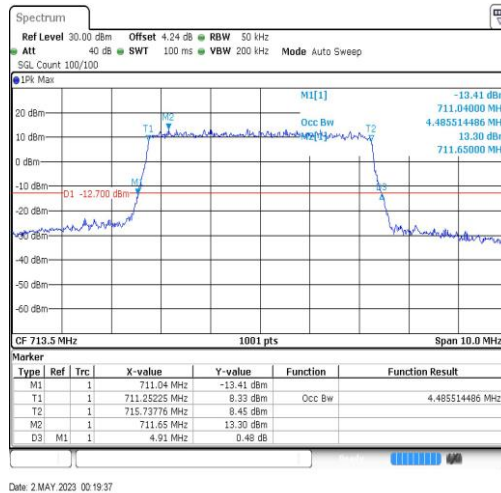
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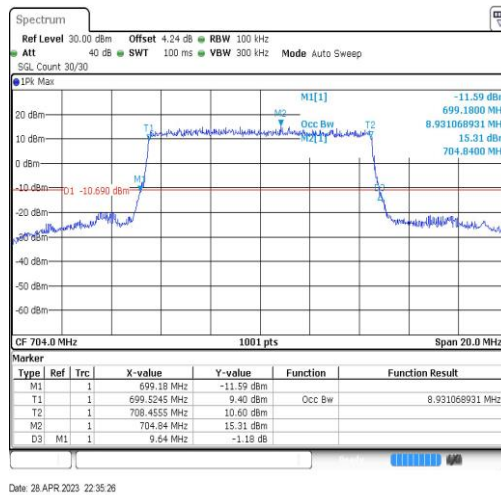
Report No.: ZEWM2303000343RG02

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Band12-5MHz-64QAM-23155-25RB#0-4.486



Band12-10MHz-QPSK-23060-50RB#0-8.931

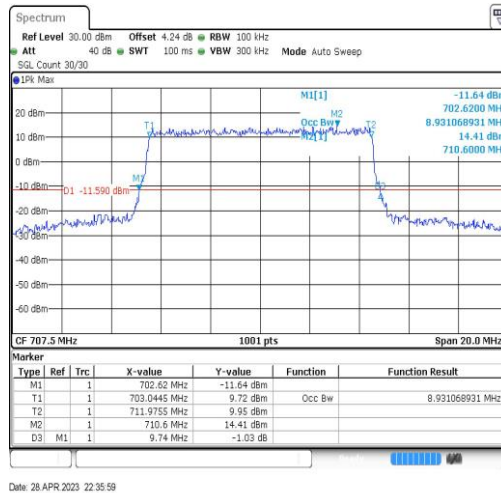


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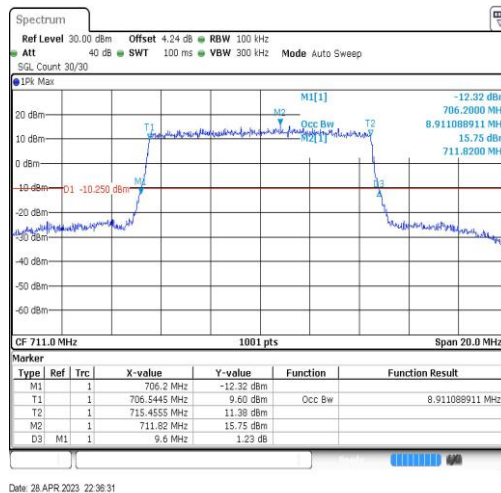
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Band12-10MHz-QPSK-23095-50RB#0-8.931



Band12-10MHz-QPSK-23130-50RB#0-8.911

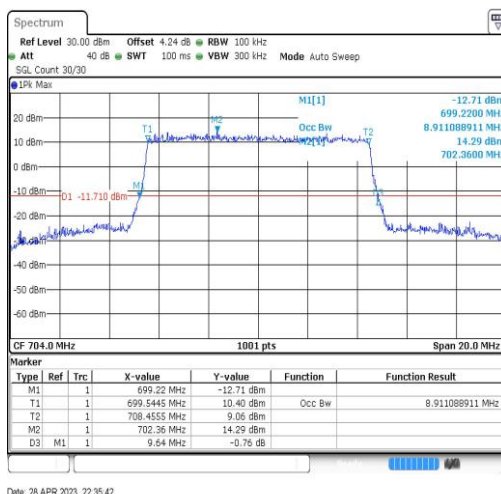




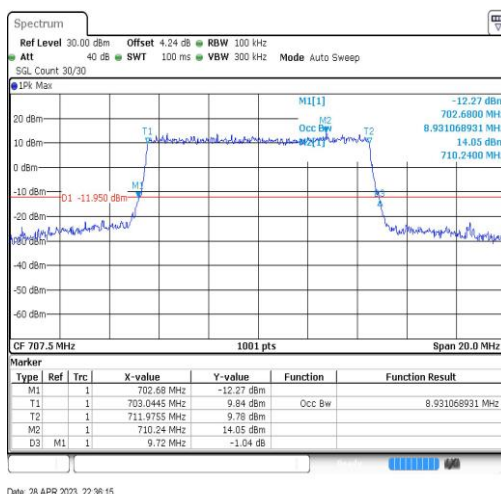
Report No.: ZEWM2303000343RG02

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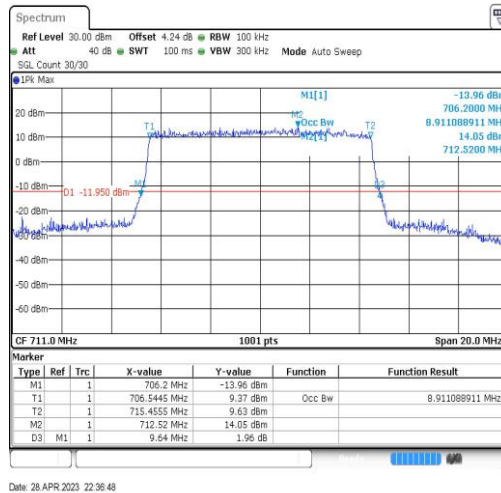


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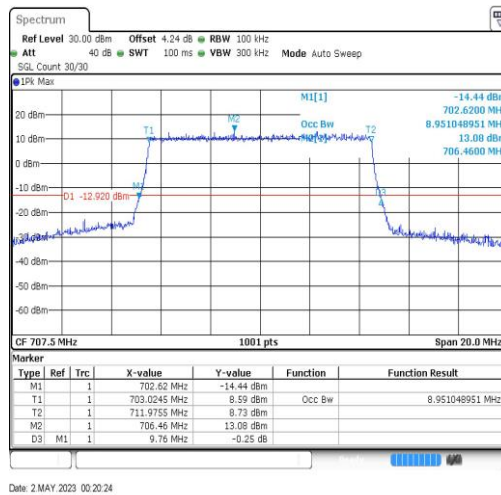


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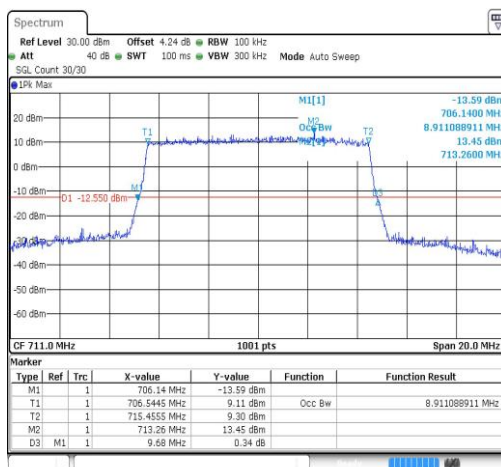


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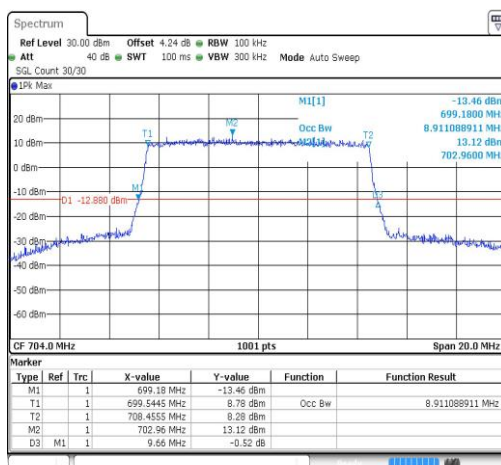
Band12-10MHz-64QAM-23095-50RB#0-8.951





Date: 2 MAY 2023 00:20:41

Band12-10MHz-64QAM-23130-50RB#0-8.911



Date: 16 MAY 2023 14:04:51

Band12-10MHz-64QAM-23060-50RB#0-8.911



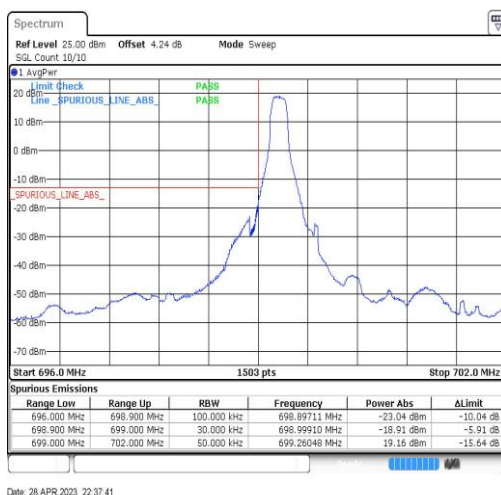
Report No.: ZEWM2303000343RG02

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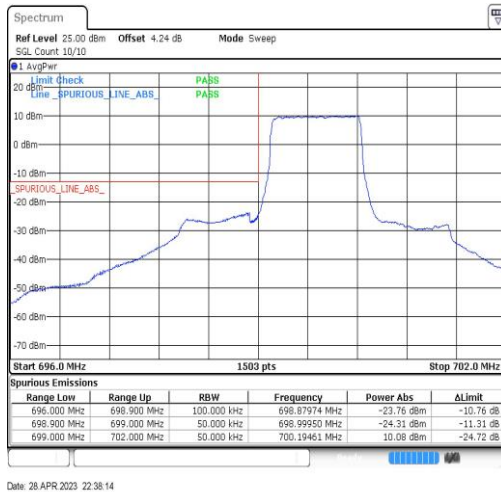
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Band Edge

Test Graphs



Band12-1.4MHz-QPSK-23017-1RB#0



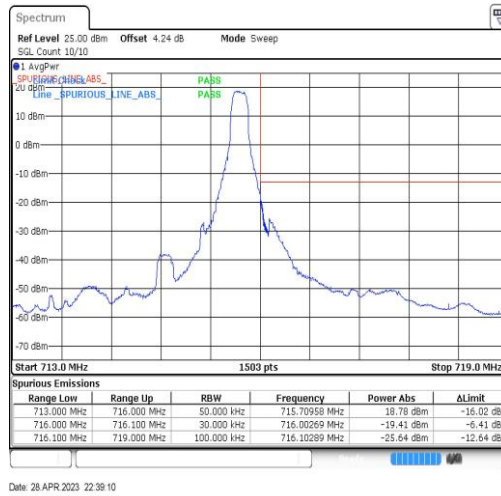
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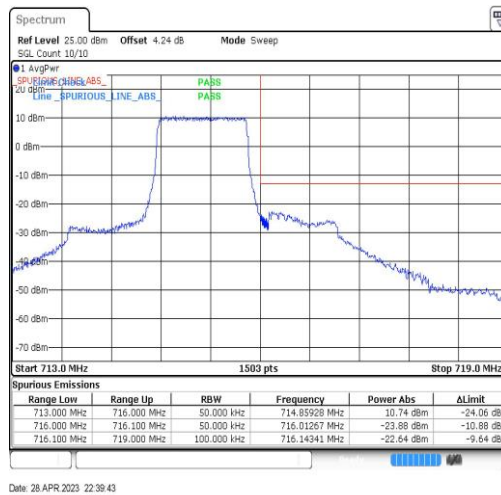
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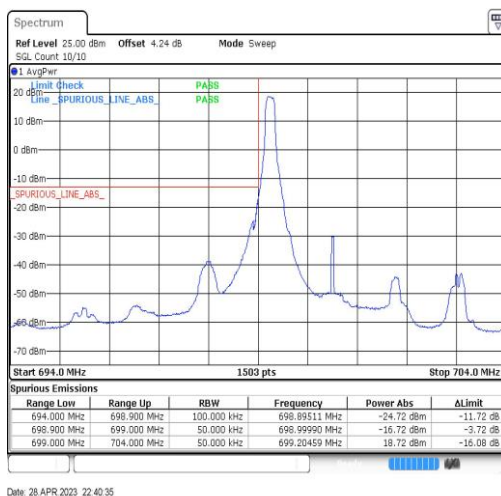


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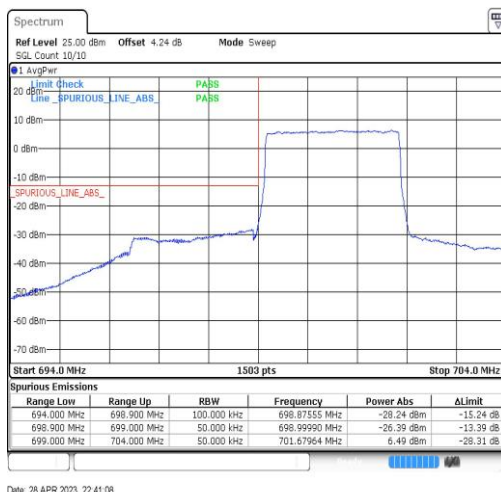


Band12-1.4MHz-QPSK-23173-6RB#0





Band12-3MHz-QPSK-23025-1RB#0



Band12-3MHz-QPSK-23025-15RB#0

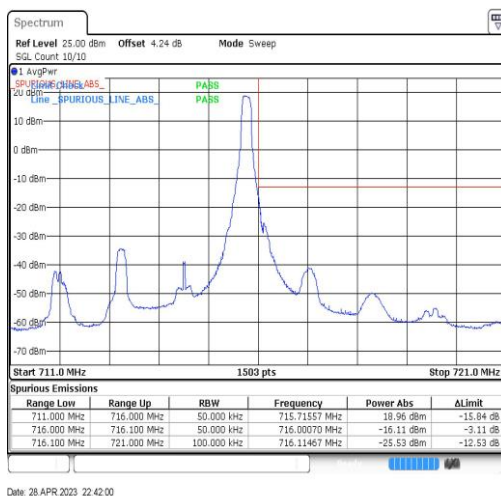




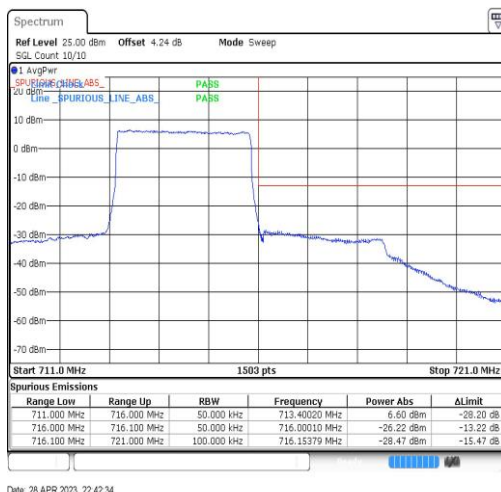
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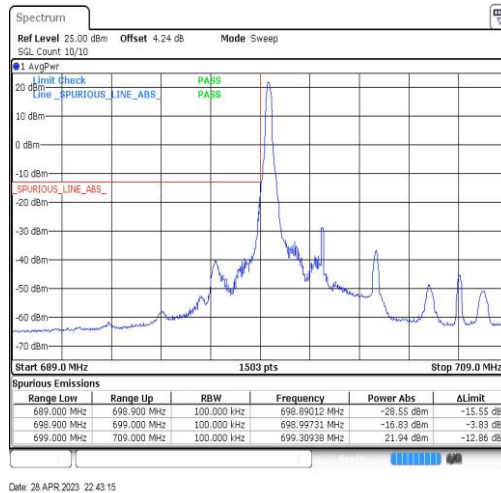


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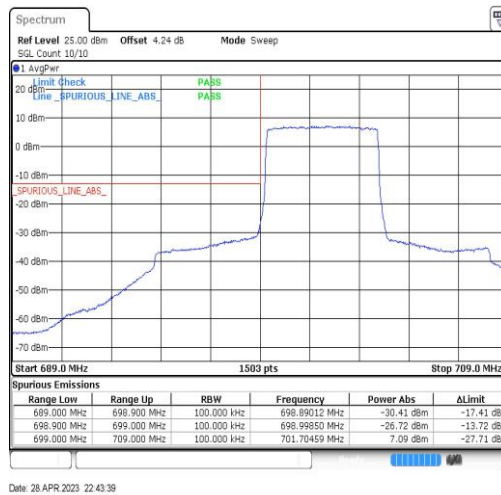


Band12-3MHz-QPSK-23165-15RB#0



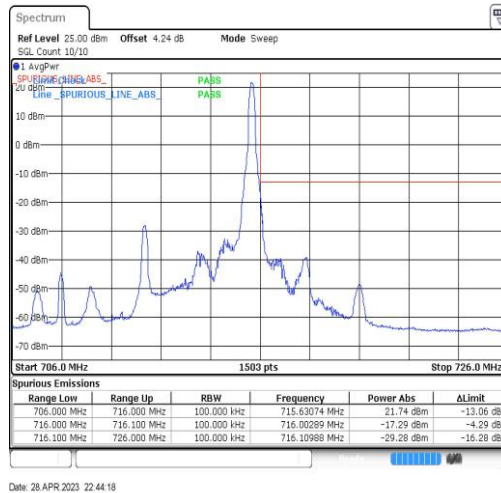


Band12-5MHz-QPSK-23035-1RB#0

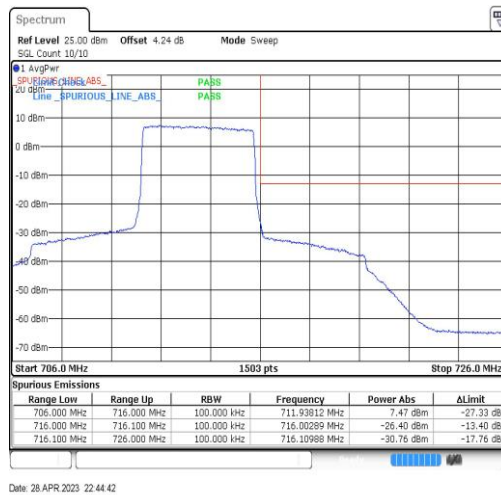


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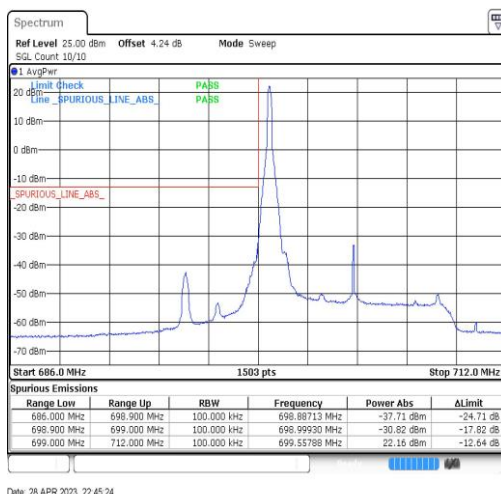


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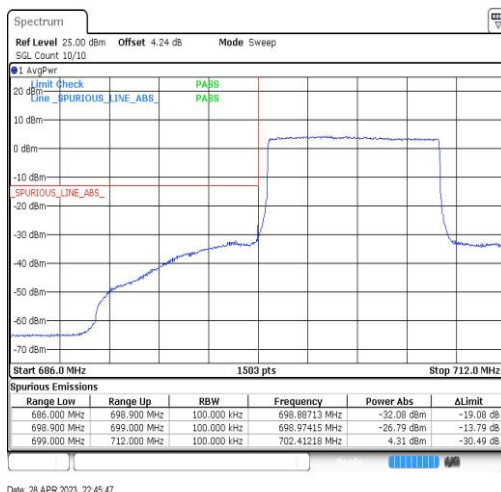


Band12-5MHz-QPSK-23155-25RB#0





Band12-10MHz-QPSK-23060-1RB#0



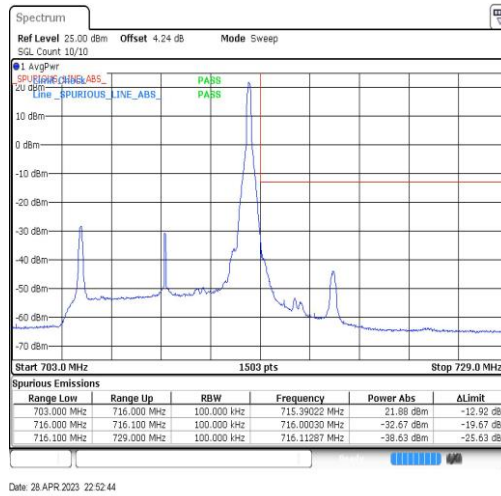
Band12-10MHz-QPSK-23060-50RB#0



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Band12-10MHz-QPSK-23130-1RB#49



Band12-10MHz-QPSK-23130-50RB#0



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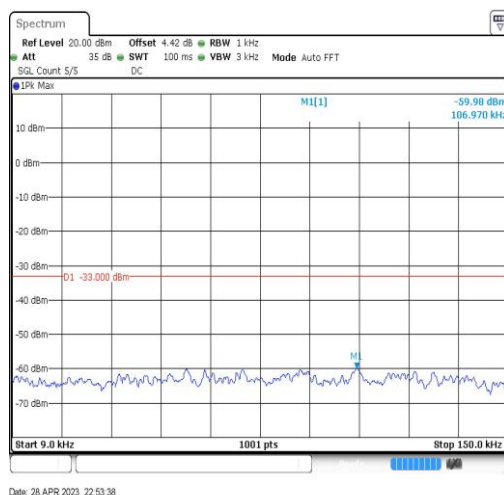
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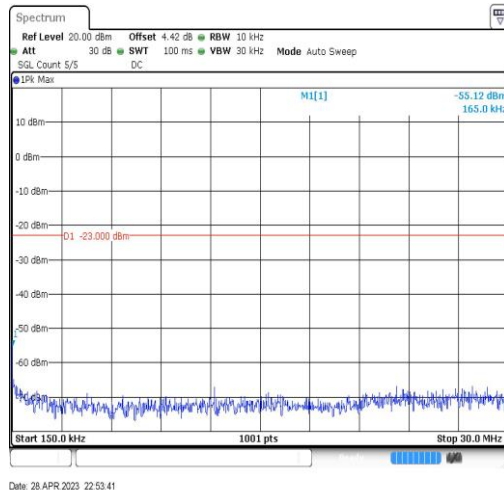


Conducted Spurious Emission

Test Graphs



Band12-10MHz-QPSK-23060-1RB#0-Range1:0.009~0.15MHz



Band12-10MHz-QPSK-23060-1RB#0-Range2:0.15~30MHz

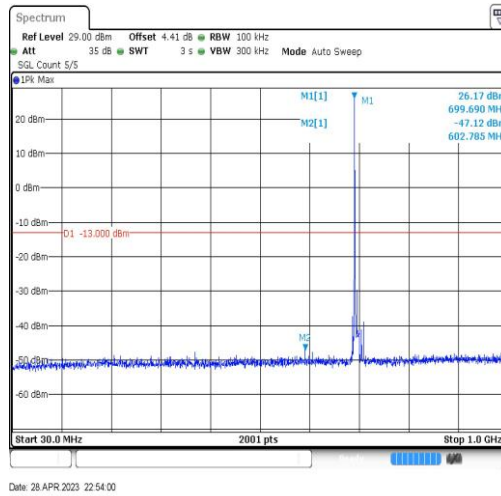




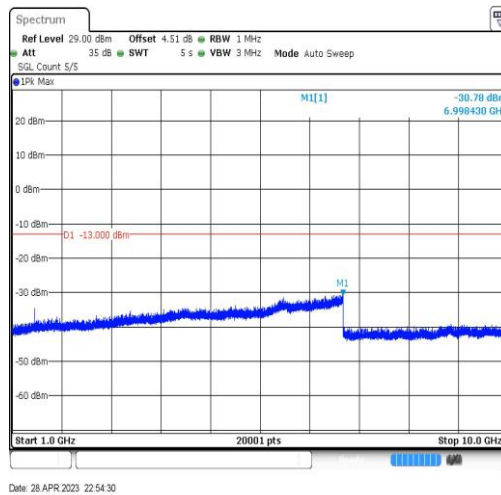
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Band12-10MHz-QPSK-23060-1RB#0-Range3:30~1000MHz



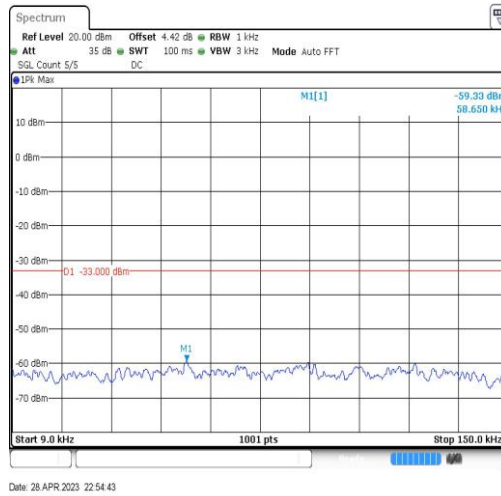
Band12-10MHz-QPSK-23060-1RB#0-Range4:1000~10000MHz



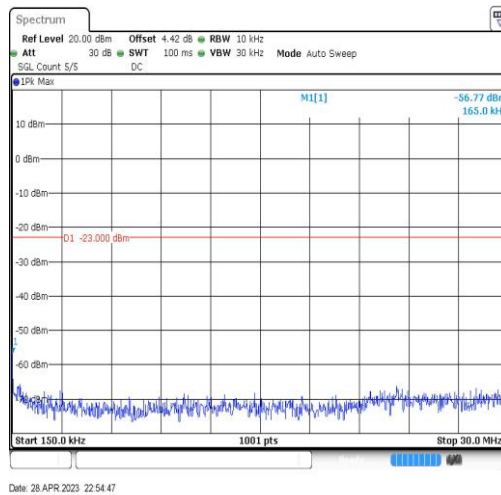
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Band12-10MHz-QPSK-23095-1RB#0-Range1:0.009~0.15MHz



Band12-10MHz-QPSK-23095-1RB#0-Range2:0.15~30MHz



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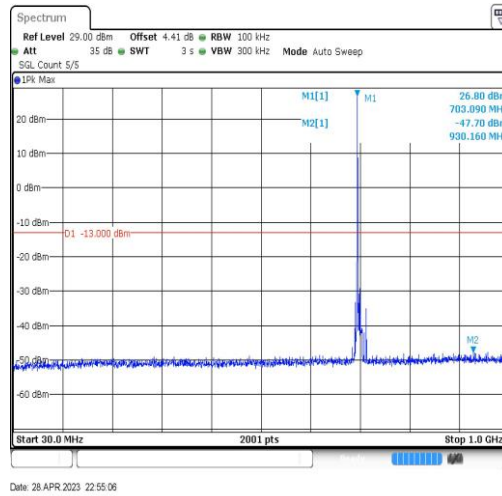
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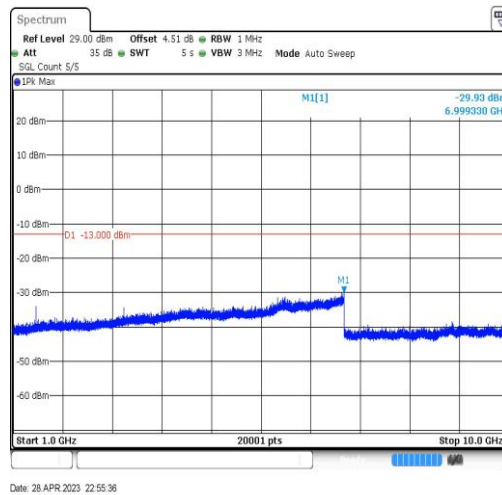
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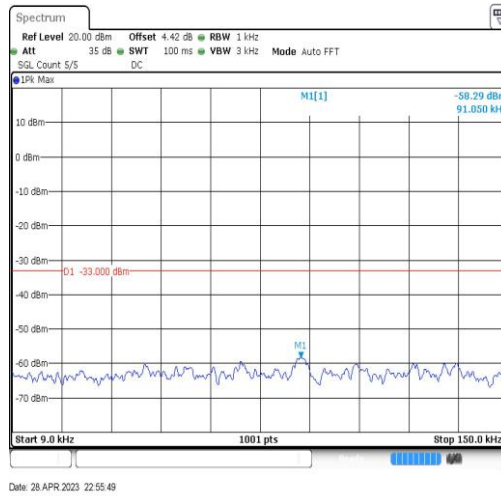


Band12-10MHz-QPSK-23095-1RB#0-Range3:30~1000MHz

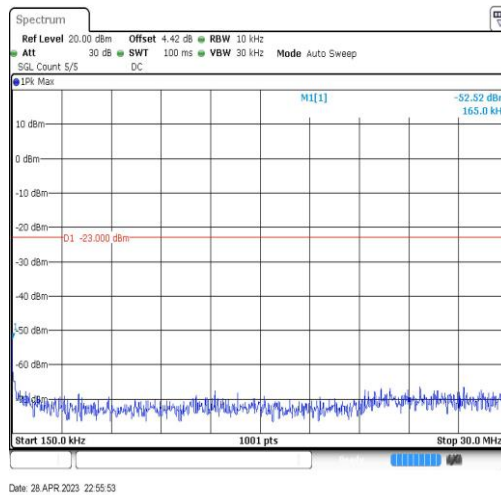


Band12-10MHz-QPSK-23095-1RB#0-Range4:1000~10000MHz



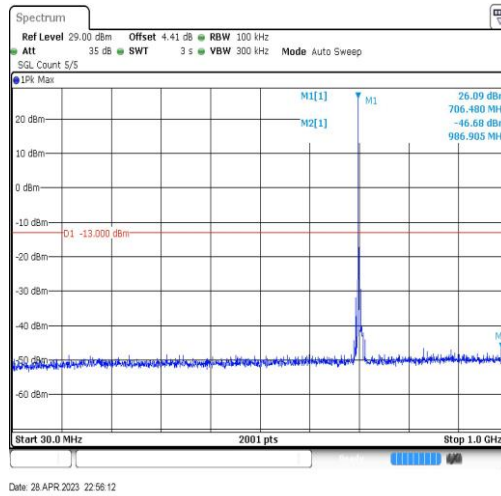


Band12-10MHz-QPSK-23130-1RB#0-Range1:0.009~0.15MHz

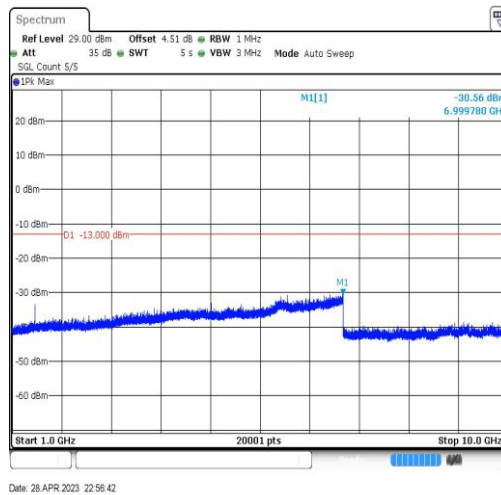


Band12-10MHz-QPSK-23130-1RB#0-Range2:0.15~30MHz





Band12-10MHz-QPSK-23130-1RB#0-Range3:30~1000MHz



Band12-10MHz-QPSK-23130-1RB#0-Range4:1000~10000MHz





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Field Strength of Spurious Radiation

Test Band = LTE_12 ANT 13_10MHz_TM1

Test Channel = LCH

Final Data List										
NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB]	AF [dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1399.0499	52.71	-47.39	24.90	-65.04	-13.00	52.04	201	275	Horizontal
2	2098.8874	50.17	-46.87	26.79	-65.17	-13.00	52.17	269	24	Horizontal
3	3051.8026	47.71	-45.23	28.80	-63.98	-13.00	50.98	264	193	Horizontal
4	3903.7452	48.49	-44.20	29.71	-61.26	-13.00	48.26	213	358	Horizontal
5	5342.3171	46.85	-42.17	32.15	-58.43	-13.00	45.43	198	188	Horizontal
6	7351.0676	44.99	-38.57	36.50	-52.34	-13.00	39.34	264	268	Horizontal

Final Data List										
NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB]	AF [dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1399.2999	49.98	-47.39	24.90	-67.77	-13.00	54.77	261	266	Vertical
2	2360.6701	48.38	-46.62	27.56	-65.94	-13.00	52.94	239	292	Vertical
3	3692.6846	48.60	-44.50	29.30	-61.86	-13.00	48.86	266	118	Vertical
4	5410.5705	46.92	-41.98	32.44	-57.88	-13.00	44.88	169	0	Vertical
5	7744.8372	44.97	-37.71	36.44	-51.56	-13.00	38.56	264	161	Vertical
6	9892.5446	42.92	-35.02	38.54	-48.82	-13.00	35.82	236	348	Vertical





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Test Band = LTE_12 ANT 13 _10MHz TM1

Test Channel = MCH

Final Data List										
NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB]	AF [dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1406.3008	52.55	-47.40	24.95	-65.16	-13.00	52.16	265	270	Horizontal
2	2109.1386	51.04	-46.88	26.75	-64.35	-13.00	51.35	169	20	Horizontal
3	3719.986	48.60	-44.59	29.42	-61.83	-13.00	48.83	164	311	Horizontal
4	5704.5852	47.18	-41.15	32.50	-56.73	-13.00	43.73	226	333	Horizontal
5	7443.4722	45.12	-38.28	36.79	-51.63	-13.00	38.63	263	160	Horizontal
6	9896.0448	42.81	-34.99	38.57	-48.87	-13.00	35.87	218	306	Horizontal

Final Data List										
NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB]	AF [dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1406.3008	49.85	-47.40	24.95	-67.86	-13.00	54.86	216	23	Vertical
2	2109.3887	48.11	-46.88	26.74	-67.29	-13.00	54.29	400	100	Vertical
3	3108.8554	47.82	-45.36	28.86	-63.94	-13.00	50.94	336	75	Vertical
4	4509.2755	48.15	-42.99	29.62	-60.48	-13.00	47.48	226	32	Vertical
5	7192.1596	44.95	-38.73	36.57	-52.47	-13.00	39.47	254	27	Vertical
6	9895.6948	43.20	-34.99	38.57	-48.48	-13.00	35.48	219	182	Vertical





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Test Band = LTE_12 ANT 13 _10MHz TM1

Test Channel = HCH

Final Data List										
NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB]	AF [dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1413.3017	54.38	-47.42	25.01	-63.29	-13.00	50.29	361	260	Horizontal
2	2119.89	50.20	-46.90	26.68	-65.28	-13.00	52.28	208	2	Horizontal
3	3612.1806	48.78	-44.37	29.00	-61.85	-13.00	48.85	264	284	Horizontal
4	5675.1838	47.05	-41.21	32.50	-56.92	-13.00	43.92	216	310	Horizontal
5	7867.3434	44.56	-37.62	36.70	-51.62	-13.00	38.62	299	220	Horizontal
6	9917.7459	43.44	-35.43	38.62	-48.63	-13.00	35.63	168	2	Horizontal

Final Data List										
NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB]	AF [dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1413.0516	51.93	-47.42	25.00	-65.75	-13.00	52.75	165	21	Vertical
2	2018.8774	48.30	-46.92	26.42	-67.46	-13.00	54.46	199	12	Vertical
3	3121.4561	47.98	-45.25	28.81	-63.72	-13.00	50.72	264	246	Vertical
4	3917.0459	48.40	-44.19	29.77	-61.28	-13.00	48.28	223	188	Vertical
5	6096.6048	46.42	-40.56	33.41	-55.99	-13.00	42.99	308	353	Vertical
6	7718.9359	44.50	-37.62	36.65	-51.73	-13.00	38.73	164	315	Vertical





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Test Band = LTE_12 ANT 31_10MHz TM1

Test Channel = LCH

Final Data List										
NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB]	AF [dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1399.0499	50.34	-47.39	24.90	-67.41	-13.00	54.41	333	258	Horizontal
2	2410.1763	48.64	-46.62	27.44	-65.80	-13.00	52.80	114	12	Horizontal
3	3129.1565	47.79	-45.19	28.78	-63.88	-13.00	50.88	276	23	Horizontal
4	3919.146	48.77	-44.19	29.78	-60.90	-13.00	47.90	386	91	Horizontal
5	6094.5047	46.71	-40.58	33.41	-55.72	-13.00	42.72	265	201	Horizontal
6	8963.9482	43.95	-36.10	36.84	-50.57	-13.00	37.57	285	112	Horizontal

Final Data List										
NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB]	AF [dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1399.0499	49.87	-47.39	24.90	-67.88	-13.00	54.88	113	31	Vertical
2	2002.8754	48.16	-46.93	26.49	-67.54	-13.00	54.54	279	126	Vertical
3	3063.3532	48.00	-45.28	28.83	-63.71	-13.00	50.71	170	159	Vertical
4	3982.4991	48.56	-44.18	29.84	-61.04	-13.00	48.04	174	154	Vertical
5	5511.3756	47.19	-41.80	32.35	-57.52	-13.00	44.52	233	206	Vertical
6	7848.0924	44.78	-37.70	36.79	-51.39	-13.00	38.39	295	23	Vertical



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Test Band = LTE_12 ANT 31_10MHz TM1

Test Channel = MCH

Final Data List										
NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB]	AF [dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1397.7997	49.03	-47.40	24.91	-68.72	-13.00	55.72	336	293	Horizontal
2	2109.3887	49.15	-46.88	26.74	-66.25	-13.00	53.25	109	39	Horizontal
3	3134.4067	47.73	-45.14	28.76	-63.91	-13.00	50.91	154	306	Horizontal
4	3933.8467	48.58	-44.19	29.84	-61.03	-13.00	48.03	141	328	Horizontal
5	5601.3301	47.69	-41.44	32.60	-56.41	-13.00	43.41	156	296	Horizontal
6	7962.1981	44.97	-37.34	36.40	-51.23	-13.00	38.23	253	238	Horizontal

Final Data List										
NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB]	AF [dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1440.055	48.61	-47.48	25.22	-68.91	-13.00	55.91	144	179	Vertical
2	2414.1768	48.81	-46.62	27.46	-65.61	-13.00	52.61	261	266	Vertical
3	3719.286	48.82	-44.59	29.42	-61.61	-13.00	48.61	295	313	Vertical
4	5134.0567	48.04	-42.53	31.70	-58.05	-13.00	45.05	226	29	Vertical
5	7424.5712	45.19	-38.28	36.75	-51.60	-13.00	38.60	203	87	Vertical
6	9913.8957	43.71	-35.33	38.61	-48.27	-13.00	35.27	215	0	Vertical





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Test Band = LTE_12 ANT 31_10MHz_TM1

Test Channel = HCH

Final Data List										
NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB]	AF [dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1648.081	48.48	-47.52	25.48	-68.82	-13.00	55.82	219	314	Horizontal
2	2119.64	49.02	-46.90	26.68	-66.46	-13.00	53.46	367	9	Horizontal
3	3084.0042	47.88	-45.36	28.87	-63.87	-13.00	50.87	265	40	Horizontal
4	4812.3906	47.77	-42.94	30.75	-59.68	-13.00	46.68	314	24	Horizontal
5	6705.6353	45.72	-39.57	35.11	-54.00	-13.00	41.00	131	108	Horizontal
6	9909.6955	42.86	-35.21	38.61	-49.00	-13.00	36.00	342	349	Horizontal

Final Data List										
NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB]	AF [dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1674.3343	48.83	-47.48	25.31	-68.60	-13.00	55.60	155	96	Vertical
2	2328.6661	47.97	-46.63	27.39	-66.53	-13.00	53.53	302	312	Vertical
3	3202.3101	47.65	-44.62	28.41	-63.82	-13.00	50.82	156	338	Vertical
4	4800.14	47.75	-42.95	30.80	-59.66	-13.00	46.66	137	69	Vertical
5	7731.5366	44.94	-37.67	36.55	-51.44	-13.00	38.44	288	5	Vertical
6	9889.7445	42.88	-35.04	38.52	-48.90	-13.00	35.90	239	211	Vertical

Remark:

1) The field strength is calculated by adding the Antenna Factor, Cable Factor & AMP. The basic equation with a sample calculation is as follows:

AF = Antenna Factor(dB/m)

Factor = Cable Factor(dB) - Preamplifier (dB)

Level = Reading Level + AF + Factor -95.26

Margin = Limit – Level





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Frequency Stability

Test Result

Voltage									
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Verdict
Band12	10MHz	QPSK	23095	50RB#0	VN	NT	2.40	0.003392	PASS
Band12	10MHz	QPSK	23095	50RB#0	VL	NT	2.40	0.003392	PASS
Band12	10MHz	QPSK	23095	50RB#0	VH	NT	-0.50	-0.000707	PASS

Temperature									
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Verdict
Band12	10MHz	QPSK	23095	50RB#0	NV	-30	1.70	0.002403	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	-20	-1.20	-0.001696	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	-10	1.10	0.001555	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	0	1.10	0.001555	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	10	0.50	0.000707	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	20	1.70	0.002403	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	30	0.80	0.001131	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	40	-0.30	-0.000424	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	50	0.80	0.001131	PASS

---End of Attachment---

